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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
| 10/563,894  | 06/01/2006  | Katri Keski-Nisula   | LM<br>INSTRUMENTS-249556 | 7027             |
| 21831   | 7590        | 02/03/2010           | EXAMINER                 |                  |
| Cozen O'Connor<br>250 PARK AVENUE<br>NEW YORK, NY 10177 |             |                      | PATEL, YOGESH P          |                  |
|   |             |                      | ART UNIT                 | PAPER NUMBER     |
|   |             |                      | 3732                     |                  |
|   |             |                      | NOTIFICATION DATE        | DELIVERY MODE    |
|   |             |                      | 02/03/2010               | ELECTRONIC       |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto@cozen.com  
ggress@cozen.com

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/563,894 | <b>Applicant(s)</b><br>KESKI-NISULA ET AL. |  |
|                              | <b>Examiner</b><br>YOGESH PATEL      | <b>Art Unit</b><br>3732                    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-25 is/are pending in the application.
- 4a) Of the above claim(s) 24 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 10, 15-17 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (4,784,605) in view of Dutertre (WO 02/062253A1).

Bergersen discloses an orthodontic device (as in previous rejection) for guiding the occlusion of an individual, the device including a generally U-shaped arch made of flexible material (col. 3, lines 13-16) and that has a lower surface on the lower jaw side and an upper surface on the upper jaw side, and in both of which there are concaves for receiving the individual's teeth (col. 2, lines 35-40), the bottoms of the concaves forming an isthmus which separates the concaves from one another, wherein the isthmus includes blanks intended for individual teeth and uniform, continuous recesses (e.g. trough) for at least two teeth to guide the teeth in the desired direction.

Bergersen fails to disclose a lower wing reaching the immediate proximity of the mouth cavity and it arranged to align at least essentially downwards and to essentially follow the shape of lower jaw arch, extending lower than the corresponding outer wall, shape of lower arch. Dutertre teaches a device (figure 2) including a wing 30 capable of reaching the immediate proximity of the mouth cavity, and arranged to essentially follow

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the shape of lower jaw arch; extending lower than the corresponding outer wall, shape of arch. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Bergersen by providing the lower wing as claimed as taught by Dutertre in order to provide full protection of teeth of a user and/or for positioning and holding an individual's teeth in a pre-determined position.

With respect to the specifics of the lower wing, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to make the device in a specific range as claimed, since it has been held that discovering the optimum or workable ranges involves only routine skills in the art. In re Aller, 105 USPQ 233. Furthermore, such range would vary among users (e.g. children vs. adults), thus applying appropriate range to the device would be obvious to one having ordinary skills in the art.

The examiner notes that the device is intended for guiding an occlusion of an individual. With regard the statement of intended use and other functional statements, they do not impose any structural limitations on the claims distinguishable over the prior art of record which is capable of being used as claimed if one so desires to do so. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claims 7-9 and 18-23, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen in view of Dutertre et al. as applied to claim 1 above, and further in view of Bergersen (5,645,420).

Bergersen'605/Dutertre disclose all elements of the claimed invention, and further disclose different size ranges (Bergersen, col. 2, lines 38-40) except for a thickness of the isthmus and the dimensions of the device. Bergersen '420 teaches the variation of the isthmus thickness for the correction of the overbite can be accomplished either by reducing the thickness in the area of the posterior teeth or increasing the thickness in the area of the anterior teeth (col. 6-7). Similarly, by increasing the thickness of the isthmus in the posterior region relative to the anterior region, an open bite can be corrected. The variation in thickness of the isthmus occurs in step because the thickness is different in anterior and posterior portions. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Bergersen/Dutertre by providing a varying thickness of the isthmus of the device as taught by Bergersen'420 in order to correct open bite/overbite problems (col. 6, lines 49-67 and col. 7, lines 19-42). Regarding the dimensions of the appliance, the dental structure of users (e.g. dentition) varies in sizes depending on particular users' age. For example, if the user is 15 years old, then the length of the compartment would be lesser than the compartment length for user that is older than specified age and vise versa. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Bergersen/Dutertre by providing the appliance in variety of sizes (e.g. as claimed) so that large group of users may benefit

from correcting open-bite tendencies and tongue thrust problems and/or to protect teeth using the appliance.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen in view of Dutertre as applied to claim 10 above, and further in view of DeLuke.

Bergersen/DeLuke discloses the invention substantially as claimed except for the lower wing has been reduced at the point of the ligament.

DeLuke teaches an intra-oral appliance having a lower wing 30 that is reduced at a point as seen in figure 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Bergersen/DeLuke by providing the wing being reduced at the point of the ligament as taught by DeLuke in order to receive and support the front portion of the tongue.

### ***Response to Arguments***

Applicant's arguments filed 11/04/2009 have been fully considered but they are not persuasive. Applicant's arguments regarding orthodontics is very "precise science" is considered, however not found persuasive. The Examiner believes that the appliance as claimed is not structurally distinct from prior art of record. Further, the lower wing 30 of Dutertre follows the anatomy of the jawbone as it seen in figure 3. Regarding claim 13, see new ground of rejection above.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOGESH PATEL whose telephone number is (571)270-3646. The examiner can normally be reached on 8:00 to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YOGESH PATEL/  
Examiner, Art Unit 3732

/Ralph A. Lewis/  
Primary Examiner, Art Unit 3732